

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 2003/107376 A3

(51) International Patent Classification⁷: **H01J 5/62**,
H01R 4/20

(21) International Application Number:
PCT/IB2003/002322

(22) International Filing Date: 27 May 2003 (27.05.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02077440.2 18 June 2002 (18.06.2002) EP

(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BOOMKENS**,

Allard, A. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **DE BOT, Frank, G., C.** [NL/NL];
c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
TEN HORN, Diederik [NL/NL]; c/o Prof. Holstlaan 6,
NL-5656 AA Eindhoven (NL).

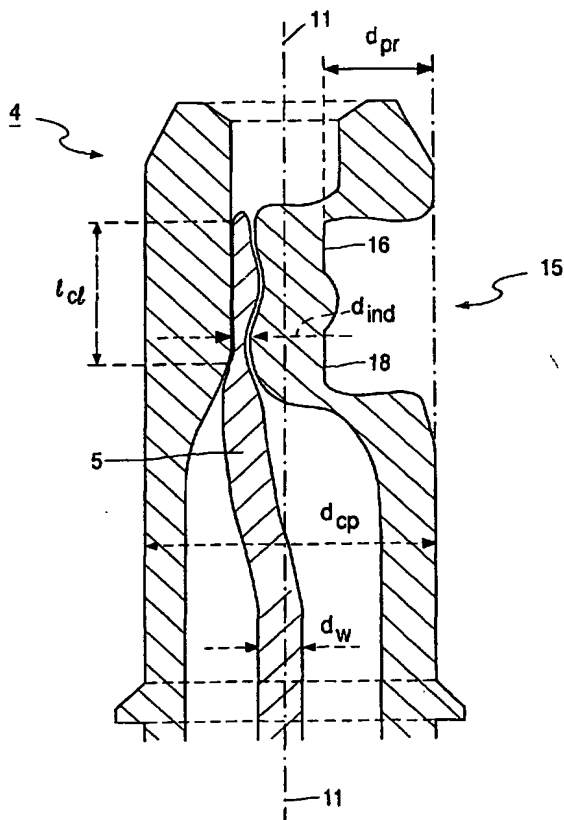
(74) Agent: **VAN WERMESKERKEN, Stephanie, C.**;
Philips Intellectual Property & Standards, Prof. Holstlaan
6, NL-5656 AA Eindhoven (NL).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: CAPPED ELECTRIC LAMP AND LOW-PRESSURE MERCURY-VAPOR DISCHARGE LAMP



(57) Abstract: A capped electric lamp has a light-transmitting lamp vessel accommodating an electrical element and a lamp cap provided with a projecting contact pin (4). An indentation (15) is formed in the contact pin (4) to fix the current-supply conductor (5). According to the invention, the indentation (15) comprises a weakening portion (16) for weakening the current-supply conductor (5) during the manufacture of the electric lamp and comprises a fixation portion (18) for fixing the current-supply conductor (5) in the contact pin (4), wherein said weakening and fixation portion are substantially parallel to each other. Preferably, the indentation (15) comprises a narrow portion (17) between the weakening portion (16) and the fixation portion (18) which is relatively narrow compared with the weakening portion (16) and the fixation portion (18).



European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

13 January 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/IB 03/02322

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01J5/62 H01R4/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H01J H01R H01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | US 2 680 236 A (KUEBLER ROBERT A) 1 June 1954 (1954-06-01) | 1-3, 10 |
| Y | figures 1, 2, 4 | 7-9, 11 |
| Y | WO 01/63638 A (KONINKL PHILIPS ELECTRONICS NV) 30 August 2001 (2001-08-30) claims 1, 7 page 4, lines 6-11 | 7-9, 11 |
| A | EP 0 461 002 A (AEROSPATIALE) 11 December 1991 (1991-12-11) figure 2 | 1 |
| A | US 3 140 142 A (MARQUIS DONALD A) 7 July 1964 (1964-07-07) figure 2 | 1 |

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

1 November 2004

Date of mailing of the international search report

24/11/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Peters, V

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 05/02322

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|----------------------------|---------------------|
| US 2680236 | A | 01-06-1954 | CH 299051 A | 31-05-1954 |
| | | | CH 309306 A | 31-08-1955 |
| | | | DE 1683769 U | 23-09-1954 |
| | | | DE 887845 C | 27-08-1953 |
| | | | DE 913079 C | 08-06-1954 |
| | | | FR 1048020 A | 18-12-1953 |
| | | | GB 692289 A | 03-06-1953 |
| | | | GB 692290 A | 03-06-1953 |
| | | | US 2694433 A | 16-11-1954 |
| WO 0163638 | A | 30-08-2001 | CN 1363108 T | 07-08-2002 |
| | | | WO 0163638 A1 | 30-08-2001 |
| | | | EP 1175688 A1 | 30-01-2002 |
| | | | JP 2003524871 T | 19-08-2003 |
| | | | US 2002030448 A1 | 14-03-2002 |
| EP 0461002 | A | 11-12-1991 | FR 2662864 A1 | 06-12-1991 |
| | | | CA 2043580 A1 | 06-12-1991 |
| | | | DE 69108110 D1 | 20-04-1995 |
| | | | DE 69108110 T2 | 24-08-1995 |
| | | | EP 0461002 A1 | 11-12-1991 |
| | | | JP 4229585 A | 19-08-1992 |
| | | | JP 2000000072 U | 24-10-2000 |
| US 3140142 | A | 07-07-1964 | DE 1865162 U | 10-01-1963 |